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New records of *Hymenoscyphus, Parascutellinia,* and *Scutellinia* for Turkey

Ali Keleş*

Department of Science and Mathematics Education, Yüzüncü Yıl University, Zeve Campus, Van, Turkey

* Correspondence to: *alikeles61@yahoo.com*

Abstract—Three ascomycetous macrofungi—*Hymenoscyphus kathiae, Parascutellinia violacea,* and *Scutellinia crinita*—are recorded for the first time from Turkey, with *P. violacea* serving also the first record of the genus for the country. The species are described briefly and accompanied by photographs illustrating their macro- and micro-morphologies.

Key words—biodiversity, *Helotiaceae, Pyronemataceae,* Siirt, Van

Introduction

Since studies on Turkish macromycota started in the second quarter of the 20th century, almost 2500 species have been reported. Considering the 15,000 macrofungi reported from Europe (Lukić 2009), it can easily be said that there is still much to be done.

This study aims to identify new records for the mycobiota of Turkey. During routine field studies some ascomycete samples were collected and identified as *Hymenoscyphus kathiae (Helotiaceae), Parascutellinia violacea (Pyronemataceae),* and *Scutellinia crinita (Pyronemataceae).* Among the 220 ascomycete species from Turkey covered by current checklists (Sesli & Denchev 2014, Solak & al. 2015) and recent publications on Turkish *Ascomycota* (Kaya & Uzun 2015, 2018; Acar & Uzun 2016; Kaya & al. 2016, 2018; Akçay & Uzun 2016; Doğan & al. 2016; Keleş & Oruç 2017; Uzun & al. 2017a,b, 2018a,b; Işık & Türkekul 2018), these three species are not cited and represent new records for the country.

Materials & methods

Fungal specimens were collected from Baykan (Siirt) and from Gevaş and Gürpınar (Van) districts during 2012–2018. The fungi were photographed in their natural habitats and their ecological and morphological characteristics noted. Specimen samples were mounted in Congo red or Melzer's reagent and examined microscopically using a Leica DM500 light microscope. The fungi were identified after consulting Svrček (1975), Schumacher (1990), Korf (1999), Garcia & Van Vooren (2005), Medardi (2006), and Van Vooren & Hairaud (2009). The collections are kept in the fungarium of Yüzüncü Yıl University, Van, Turkey (VANF).

Taxonomy

Hymenoscyphus kathiae (Korf) Baral, Fl. Mediterr. 15: 66 (2005) FIG. 1

APOTHECIA 1–3 mm diam., subsessile to shortly stipitate, cupuliform, then more or less plane, margin smooth and glabrous. HYMENIUM smooth, pale yellow to golden yellow, outer surface almost concolorous with the hymenium or lighter. STIPE noticeably short, broad, yellowish white. ASCI 90–110 × 7–10 µm, cylindrical, slightly attenuated at base and arising from croziers, generally 8-spored, some with fewer spores. ASCOSPORES 9–14(–16) × 4–5 µm, ellipsoid, hyaline, smooth, some septate when mature, with two large or small guttules, uniseriate. PARAPHYSES cylindrical, rarely septate, hyaline, generally filled with yellowish guttules.

SPECIMEN EXAMINED—TURKEY, SIIRT, Baykan, central district, on wood remnants, 38°09'37"N 41°47'17"E, 769 m, 17.11.2012, A.K. 1877 (VANF).

COMMENTS—*Hymenoscyphus kathiae* is macroscopically similar to *H. imberbis*, which differs in its ascospores with two large lipid droplets at the poles (Dimitrova & Baral 2005). In general, the morphological characteristics of our Turkish material agree with the descriptions by Dimitrova & Baral (2005) and Van Vooren & Hairaud (2009). This species is a new record for Turkey.

Parascutellinia violacea (Velen.) Svrček, Česká Mykol. 29: 129 (1975) FIG. 2

APOTHECIA 3–6 mm diam., violet in colour, usually found in small groups; surface elliptical, smooth. HYMENIUM carmine red, with some violet tones. ASCI 260–320 × 16–17 µm, cylindrical, operculate, inamyloid. ASCOSPORES 24–29 × 12–14 µm, hyaline, elliptical, thick-walled, with one large guttule and two smaller guttules. PARAPHYSES multiseptate, branched, with expanded apex, containing a red-orange to slightly rosy pigment that turns greenish in Meltzer's. PARAMARGINAL HAIRS yellowish-brown, fusiform, 75–150 µm, tightly crowded, fasciculate, multiseptate, with acute or obtuse apex, some well differentiated, others only poorly, with thickened walls ≤3 µm.

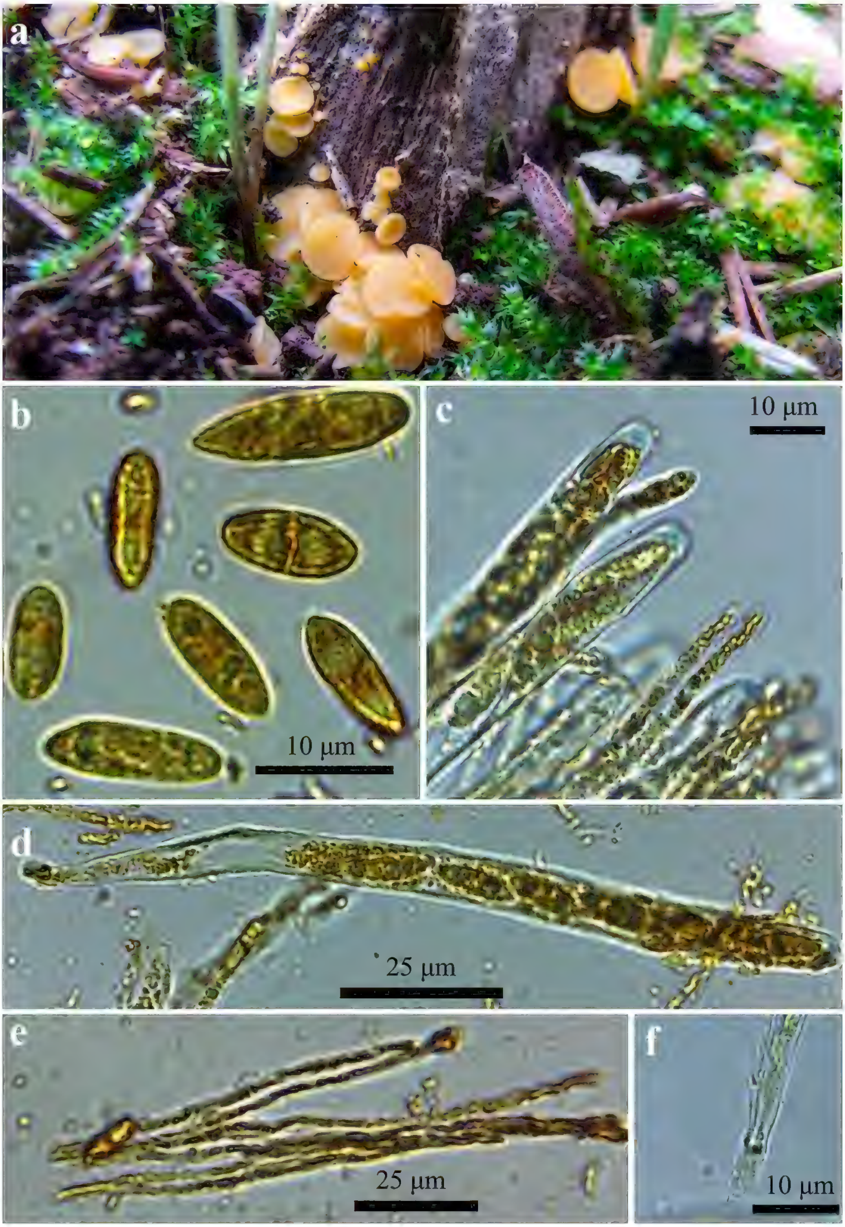

Fig 1. *Hymenoscyphus kathiae* (VANF A.K. 1877)
a. Ascomata; b. Ascospores; c. Tips of asci and paraphyses; d. Ascus;
e. Paraphyses; f. Ascus base.

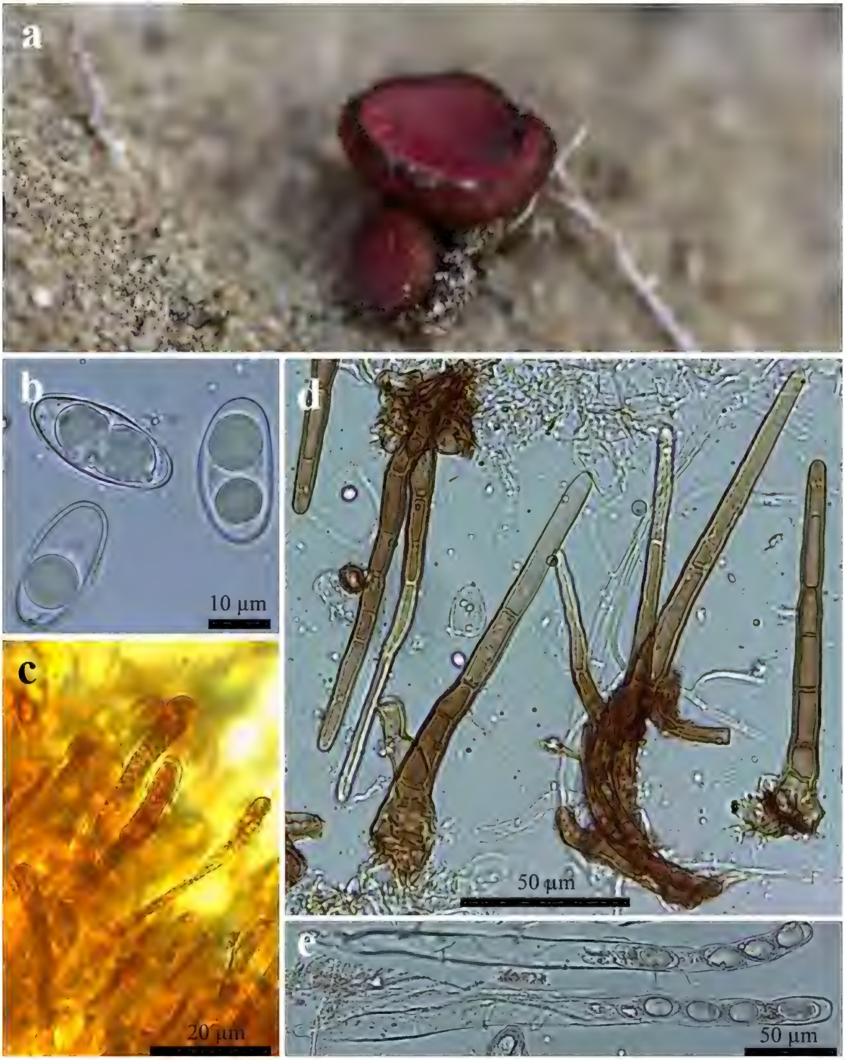

Fig 2. *Parascutellinia violacea* (VANF A.K. 2961)
a. Ascomata; b. Ascospores; c. Paraphyses; d. Hairs; e. Asci

Specimen examined—**TURKEY, Van, Gürpınar,** Güzelsu village, river side, under *Salix* sp., 38°18'59"N–43°48'00"E, 1977 m, 05.10.2016, A.K. 2961 (VANF).

Comments— *Parascutellinia violacea* resembles *P. carneosanguinea,* which differs by carotenoid pigments within its paraphyses (Svrček 1975). Although

Van Vooren (2007) reported the same maximum sizes for the ascomata (5 mm) and asci as for *P. violacea,* some fruit bodies in our Turkish material measured almost 6 mm with asci up to 320 µm. Our specimens represent the first record of both genus and species for Turkey.

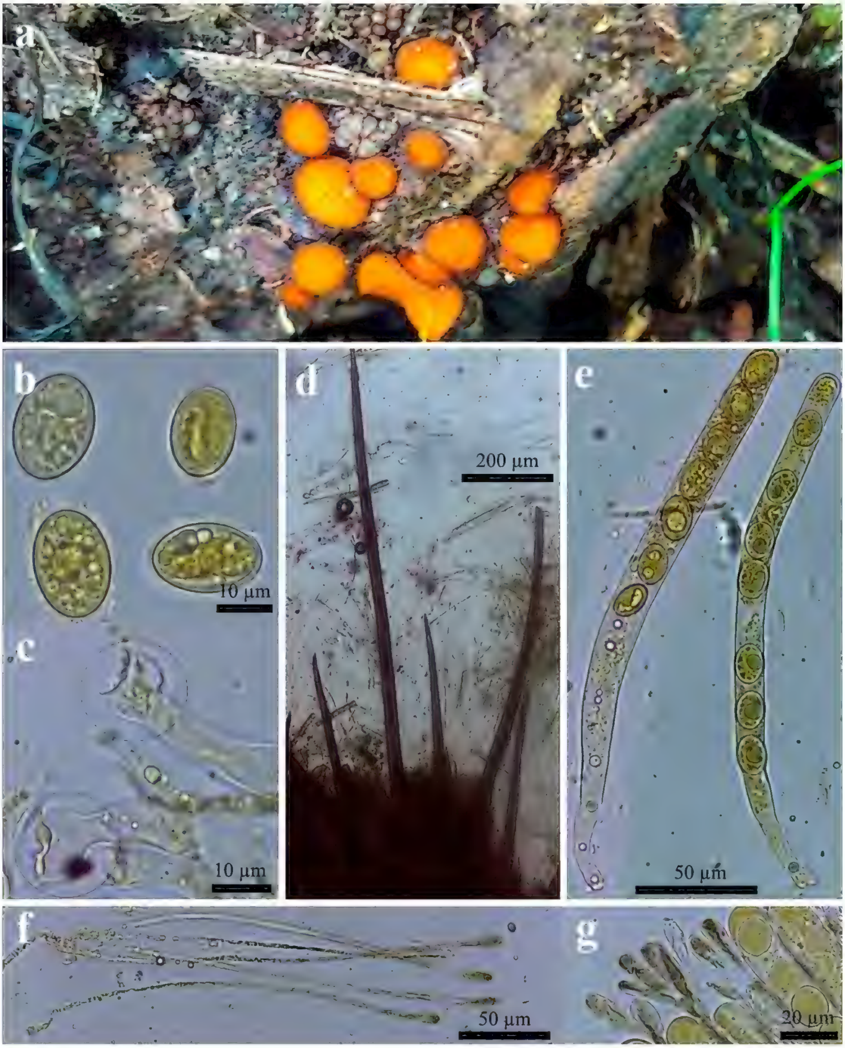

Fig 3. *Scutellinia crinita* (VANF A.K. 2963)
a. Ascomata; b. Ascospores; c. Ascal bases; d. Hairs; e. Asci;
f. Paraphyses; g. Apices of paraphyses.

Scutellinia crinita (Bull.) Lambotte,
Mém. Soc. roy. Sci. Liège, Sér. 2, 14: 301 (1887) FIG. 3

APOTHECIA 3–7(–9) mm diam., disc-shaped, without stalk. HYMENIUM light orange, edges and outer surface covered with long dark brown hairs. HAIRS 880–1550 × 22–40 µm, thick-walled, multiseptate, dark brownish, surface mostly smooth, sometimes cracked. ASCI 207–250 × 12–22 µm, and cylindrical. ASCOSPORES 16–22 × 15–18 µm, broadly rounded ellipsoid, slightly verrucose, containing many small droplets. PARAPHYSES filiform, clavate at apex, septate, somewhat branched.

SPECIMENS EXAMINED—**TURKEY, VAN, Gevaş,** at the vicinity of Kuzgunkiran tunnel, on rotten and damp wood under *Populus* sp., 38°22'09"N–42°47'40" E, 2052 m, 13.06.2018, A.K. 2963 (VANF).

COMMENTS— The maximum size of ascomata for *Scutellinia crinita* was reported as 10 mm by Matočec & Antonić (1995) and 18 mm by Thompson (2013), but none of our ascomata measured >9 mm. This species represents a new record for Turkey.

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